

Remarks

Applicant respectfully request reconsideration of this application as amended. No claims have been amended. No claims have been canceled. Therefore, claims 1, 4-5, 7-10 and 16-22 are now presented for examination.

Claims 1, 4, 5, 7-10 and 16-22 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicant submits that the present claims are properly enabled.

Applicant's specification explicitly states that a central management agent may monitor and/or control power supplies, fan trays and temperature sensors. See specification at page 4, lines 1-3. In fact, the Examiner acknowledges this disclosure in the specification. See Office Action at page 2, paragraph 2. However, the Examiner asserts that such a disclosure does not specifically state that control signals are transmitted to temperature sensors and it is unclear which components are controlled and which are monitored. *Id.*

Applicant respectfully submits that a plain English construction of the components **monitor and/or control** indicates that any of the component types may be monitored and any of the components types may be controlled. Moreover, one of ordinary skill in the art would recognize that it is inherent that a controller transmits signals to devices that are to be controlled. Therefore, the claims are properly enabled by the specification.

Claims 1, 4, 5 and 7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Stepp, III (U.S. Patent 6,487,463) and what is well known in the art. Applicants submit that the present claims are patentable over Stepp.

To establish a **prima facie** case of **obviousness**, three basic criteria must be met.

First, there must be some suggestion or motivation, either in the references themselves or in

the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Stepp discloses a system for actively cooling an electronic device. See Stepp at Abstract. Stepp further discloses a controller 320 that is coupled to temperature sensors 314 and cooling fans 316. The controller 320 monitors the temperature of components 302-312 through the temperature sensors 314. See Stepp at col. 6, ll. 14-19 and Figure 3. The controller 320 is coupled to cooling fans 316 via FAN C and FAN M connections. The FAN C connections are used to control the rotational speed of each cooling fan 316. See Stepp at col. 6, ll. 22-24. The FAN M connections are used to monitor each cooling fan 316 to detect failure of a cooling fan. See Stepp at col. 6, ll. 56-58.

Claim 1 of the present application recites:

A system comprising:
a first set of field replaceable units each being of a first type;
a second set of field replicable units each being of a second type;
a first management bus, directly coupled to each of the first set of field replaceable units, wherein the first management bus is coupled only to field replicable units of the first type;
a second management bus, directly coupled to each of the second set of field replaceable units, wherein the second management bus is coupled only to field replicable units of the second type;
a central management agent, coupled to the first management bus and the second management bus, to monitor each of the first and second sets of field

replaceable units via the first and second management buses, and to transmit signals to control each of the first and second sets of field replaceable units via the first and second management buses; and

a communication link, coupled to the central management agent, to transmit signals received from the central management agent indicating failure of one or more of the first set of field replaceable units, and the second set of field replaceable units to a remote location.

Applicant submits that there is no disclosure or suggestion in Stepp of a central management agent transmitting signals control to both the temperature sensors and the fans. Particularly, Stepp does not disclose or suggest transmitting control signals to the temperature sensors. In fact, the Examiner acknowledges that Stepp does not disclose such a feature. See Office Action at page 3, paragraph 5. However, the Examiner maintains that it would have been obvious to one of ordinary skill in the art to use the controller to control the temperature sensors by switching the sensors on and off for power conservation management. Id.

Applicant respectfully submits that to establish obviousness, the Examiner is required to provide prior art references that teach or suggest all of the claim limitations. Applicant further submits that no reference has been cited that discloses or suggests a central management agent transmitting signals control to both the temperature sensors and the fans. Therefore, claim 1 and its dependent claims are patentable over Stepp, and are in condition for allowance.

Claim 16 recites:

A system comprising:
two or more temperature sensors;
a first management bus directly coupled to each of
the two or more temperature sensors, wherein the first

management bus is coupled only to temperature sensors;

two or more fan trays;

a second management bus directly coupled to each of the two or more fan trays, wherein the second management bus is coupled only to fan trays;

a central management agent, coupled to the first management bus and the second management bus, to monitor the temperature sensors and the fan trays via the first and second management buses, and to transmit signals to control activation of one or more of the fan trays based upon signals received from one or more of the temperature sensors via the first and second management buses, and having failure detection logic to detect a failure of the temperature sensors, and the fan trays; and

a network interface card coupled to the central management agent, to transmit signals received from the central management agent indicating failure of one or more of the temperature sensors, and the fan trays to a remote location.

Applicant submits that Stepp does not disclose or suggest a process of detecting a failure of temperature sensors. Instead, Stepp discloses detecting a failure in one of the cooling fans. Thus, claim 16 and its dependent claims are patentable over Stepp.

Claims 8-10 and 16-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Stepp III, in view of Holland (U.S. Patent No. 5,367,669). Applicant submits that the present claims are patentable over Stepp in view of Holland.

Holland discloses a fault tolerant disk array control system. See Holland at Abstract. However, Holland does not disclose or suggest a central management agent transmitting signals control to temperature sensors and fans. Moreover, Holland does not disclose or suggest detecting a failure of temperature sensors. Instead, Holland discloses a Watchdog Timer that detects faulty functioning of a microprocessor. See Holland at col. 6, ll. 58-62. Applicant submits that a watchdog timer at a microprocessor is not equivalent to a central

management agent having failure detection logic to detect a failure of the temperature sensors, and the fan tray.

As discussed above, Stepp does not disclose or suggest a central management agent transmitting signals control to temperature sensors and fans, or detecting a failure of temperature sensors. Since neither Stepp nor Holland disclose or suggest such features, any combination of Stepp and Holland would not disclose the features. Therefore, the present claims are patentable over Stepp in view of Holland.

Claim 22 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Stepp III and Holland, and in further view of Jewett et al. (U.S. Patent No. 6,073,251). Applicant submits that the present claims are patentable over Stepp in view of Jewett.

Jewett discloses a computer system with a fault tolerant configuration. See Jewett at Abstract. However, Jewett does not disclose or suggest a central management agent transmitting signals control to temperature sensors and fans, or detecting a failure of temperature sensors.

As discussed above, Stepp and Holland both fail to disclose or suggest such features. Since neither Stepp, Holland nor Jewett disclose or suggest a central management agent transmitting signals control to temperature sensors and fans, or detecting a failure of temperature sensors, any combination of Stepp, Holland and Jewett would also not disclose the features. Therefore, the present claims are patentable over the combination of Stepp, Holland and Jewett.

Applicant submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully request the rejections be withdrawn and the claims be allowed.


The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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